



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 13. November 2018

17 Uhr s.t., Geom H4

Prof. Dr. Pierre Cartier
(IHES, Paris)

A cosmic Galois group, or how to use Grothendieck's motives in theoretical physics

Abstract:

As part of the general program of motives by Grothendieck, one is able to develop a generalization of Galois theory, covering some transcendental numbers like "pi". According to the work of Francis Brown and Spencer Bloch, the Feynman amplitudes in high energy physics are amenable to such a Galois theory. This suggests the existence of a new kind of symmetries in this part of theoretical physics, that I tentatively christened "Cosmic Galois group". Explicit examples have been already used to generate some kind of superselection rules.

Vor dem Vortrag (ab 16.30 Uhr) stehen im Raum 327 Kaffee und Tee bereit.